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## A NEW NOMENCLATURAL COMBINATION IN *MALVA* L. (*MALVACEAE*)

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**SUMMARY:** The name *Lavatera* × *columbretensis*, recently proposed for a hybrid growing in the Columbretes Archipelago (Castellón, E of Spain), is transferred to *Malva*. Additional data on nomenclature of other related taxa of ‘*L. sect. Anthema*’ and ‘*L. sect. Axolopha*’, are also reported. **Key words:** *Lavatera*, *Malva*, hybrids, Mediterranean islands, Spain.

**RESUMEN:** Se transfiere al género *Malva* el nombre *Lavatera* × *columbretensis*, recientemente descrito para un híbrido encontrado en el archipiélago de las Columbretes (Castellón). Además, se presentan datos complementarios sobre la nomenclatura de otros táxones de ‘*L. sect. Anthema*’ y ‘*L. sect. Axolopha*’, con él relacionados. **Palabras clave:** *Lavatera*, *Malva*, híbridos, islas mediterráneas, España.

## INTRODUCTION

Molecular work developed within the last decades on Malvales (cf. ALVERSON & al., 1998, 1999; BAYER & al., 1999) showed that some of the families in that order were not monophyletic as traditionally defined. Consequently, a new wider circumscription of Malvaceae was proposed to include other groups usually treated as independent families, such as *Berryaceae* Doweld, *Bombacaceae* Kunth, *Byttneriaceae* R. Br., *Dombeyaceae* Desf., *Helicteraceae* J. Agardh, *Sparmanniaceae* J. Agardh, *Sterculiaceae* Salisb. or *Tiliaceae* Juss. All these are currently accepted at subfamily rank under diverse names (cf. BAYER & KUBITZKI, 2003; STEVENS, 2008).

Similarly, further molecular studies (cf. RAY, 1995; FUERTES & al., 2003, TATE & SIMPSON, 2003; ESCOBAR & al., 2009; among others) demonstrated

that some genera in *Malvoideae* (= *Malvaceae* sensu stricto) were not monophyletic as usually treated, and a recircumscription was therefore needed. *Malva* L. and *Lavatera* L. are some of these genera.

In the present contribution, the position of *Lavatera* × *columbretensis*, a hybrid between *L. arborea* L. and *L. mauritanica* Durieu described from the Columbretes Archipelago (JUAN & CRESPO, 2009), is revised according to recent molecular findings (cf. ESCOBAR & al., 2009), and consequently it is transferred to *Malva*.

## RESULTS AND DISCUSSION

RAY (1995) showed that species of *Malva* and *Lavatera* fall intermingled in two different clades, the so-called ‘Lavateroid clade’ and ‘Malvoid clade’. Both can be consistently defined by fruit features better than by epicalyx connation.

The former clade includes the true *Lavatera* species (the type being *L. trimestis* L.), plus taxa of *Malva* sect. *Bismalva* (Medik.) Dumort. The latter clade groups the true *Malva* species (the type being *M. sylvestris* L.), plus other taxa formerly referred to *Lavatera*, namely *L. sect. Anthema* (Salisb.) DC. and *L. sect. Axolopha* DC. In a similar way, ESCOBAR & al. (2009) found congruent relationships between both groups, and also obtained that '*Lavatera mauritanica* Durieu' is a member of the Malvoid clade, sister to '*L. arborea* L.', among other results.

A first consequence of results of RAY (1995) was transference of taxa of *Lavatera* in the Malvoid clade to *Malva*, under different names and combinations (RAY, 1998; BANFI & al., 2006, MOLERO & MONTSERRAT, 2005; IAMONICO, 2010). Similarly, results of ESCOBAR & al. (2009) could lead to recover neglected genera names, such as *Bismalva* Medik. or *Dinacrusa* (Alef.) G. Krebs, to accommodate those *Malva* species that are not nested in the Malvoid clade.

According to the above data, both parents of *Lavatera* × *columbretensis* are members of the Malvoid clade and are better placed in *Malva*. Therefore, we propose the following new nomenclatural combination:

***Malva* × *columbretensis*** (Juan & M.B. Crespo) Juan & M.B. Crespo, *comb. nov.*

≡ *Lavatera* × *columbretensis* Juan & M.B. Crespo in Flora Montiber. 41: 5 (2009) [basion.] (*M. arborea* × *M. durieui*)

*Holotypus*: ESP, CASTELLÓN: Islas Columbretes, Isla Grossa, Casernas, 31SCE0219, 40 m, 18-III-1996, A. Juan (ABH 42556).

Remarks: This taxon has been considered a true-breeding hexaploid (2n=126), to which the × could be dropped (cf. <http://lavateraguy.blogspot.com/>). It is obviously a highly speculative comment that requires further checking. We are currently working on that direction (JU-

AN & al., in prep.).

## Nomenclatural data and synonymy

As a complement to data reported by MOLERO & MONTSERRAT (2005), the nomenclature and synonymy of the Valencian species of *Lavatera* sect. *Anthema* and *L. sect. Axolopha* DC., when transferred to *Malva* is as follows:

1. ***Malva arborea*** (L.) Webb & Berthel., Hist. Nat. Iles Canaries 3(2) [Phytogr. Canar. 1]: 30 (1836)  
≡ *Lavatera arborea* L., Sp. Pl.: 690 (1753) [basion.] ≡ *Anthema arborea* (L.) Medik., Malvenfam.: 42 (1787) ≡ *Althaea arborea* (L.) Alef. in Oesterr. Bot. Z. 12: 260 (1862) ≡ *Malva fastuosa* Salisb., Prodr. Stirp. Chap. Allerton: 381 (1796) [syn. subst.] ≡ *M. dendromorpha* M.F. Ray in Novon 8: 292 (1998) [syn. subst.], nom. superfl.  
= *Lavatera eriocalyx* Steudel in Flora 39: 438 (1856) ≡ *M. eriocalyx* (Steudel) Molero & J.M. Monts. in Fontqueria 55: 289 (2005)

Remarks: According to MOLERO & MONTSERRAT (2005), the combination by WEBB & BERTHELOT (1836) was illegitimate, since supposedly an earlier homonym existed: *Malva arborea* A. St.-Hil., Fl. Bras. Merid. 1(5): 215, t. 134, f. 4 (1827). Nonetheless, as correctly indicated in the IPNI (2010), that name does not appear in any of the three volumes of Saint Hilaire's *Flora Brasiliae meridionalis* (1824-1833). It seems therefore reasonable to accept Webb & Berthelot's combination as valid.

2. ***Malva durieui*** Spach in Linnaea 24: 233 (1851)  
≡ *Lavatera mauritanica* Durieu in Rev. Bot. Recueil Mens. 2: 436 (1847) [syn. subst.], non *M. mauritanica* Spreng., Syst. Veg. (ed. 16) 3: 90 (1826)  
= *Lavatera davaei* Cout. in Bol. Soc. Brot. 11: 122 (1893) = *L. mauritanica* subsp. *davaei* (Cout.) Cout., Fl. Portugal: 402 (1913)

3. ***Malva multiflora*** (Cav.) Soldano, Banfi & Galasso in Atti Soc. Ital. Sci.

- Nat. Mus. Civico Storia Nat. Milano 146(2): 230 (2005, publ. 2006)  
 = *Malope multiflora* Cav., Diss. 2, Secunda Diss. Bot.: 85 (1786) [basion.]  
 = *Lavatera cretica* L., Sp. Pl.: 691 (1753) = *Anthemis cretica* (L.) Medik., Malvenfam.: 42 (1787) = *Althaea cretica* (L.) Alef. in Oesterr. Bot. Z. 12: 260 (1862), nom. illeg., non Weinm., Syll. Ratisb. 2: 171 (1828) = *Malva cretica* (L.) Pau, Not. Bot. Fl. Españ. 3: 29 (1889), nom. illeg., non Cav., Diss. 5, Quinta Diss. Bot.: 280 (1788) = *Malva pseudolavatera* Webb & Berthel., Hist. Nat. Iles Canaries 3(2) [Phytogr. Canar. 1]: 29-30 (1836) [syn. subst.] = *Malva linnaei* M.F. Ray in Novon 8: 292 (1998) [syn. subst.], nom. superfl.  
 = *Lavatera empedoclis* Ucria in Arch. Bot. [Leipzig] 1(1): 69 (1796)  
 = *Lavatera neapolitana* Ten., Fl. Napol. Prodr. 1: LXII (1811-15) & 2: 113, Tav. LXV (1820)  
 = *Malva willkommiana* Scheele in Linnaea 21: 570 (1848)
- 4. *Malva subovata* (DC.) Molero & J.M. Monts.** in Fontqueria 55: 288 (2005)  
 = *Lavatera subovata* DC., Prodr. 1: 439 (1824) [basion.]  
 = *L. maritima* Gouan, Obs. Bot.: 46 (1773) = *Axolopha maritima* (Gouan) Alef. in Oesterr. Bot. Z. 12: 259 (1862) = *Malva maritima* (Gouan) Pau, Not. Bot. Fl. Españ. 3: 29 (1889), nom. illeg., non Lam., Fl. Franç. 3: 140 (1779), nom. illeg., nec Salisb., Prodr. Stirp. Chap. Allerton: 381 (1796), nom. illeg.  
 = *L. africana* Cav., Diss. 5, Quinta Diss. Bot.: 282 (1788), non Mill., Gard. Dict. ed. 8: n° 2 (1768)  
 = *Axolopha wigandii* Alef. in Oesterr. Bot. Z. 12: 259 (1862) = *M. wigandii* (Alef.) M.F. Ray in Novon 8: 293 (1998)

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